



A study to Assess The Effectiveness of Structured Teaching Program on Knowledge Regarding Substance Abuse And Its Consequences Among Higher Secondary Students in Selected School

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ABSTRACT

Background: Adolescence is a sensitive stage where rapid physical and emotional changes make teenagers vulnerable to risky behaviors. Increasing substance use among youth is linked to mental health issues and long-term harm. Studies show that peer pressure, stress, and easy access to drugs contribute to this problem. Early education and awareness can significantly reduce these risks. Therefore, school-based teaching programs are vital in preventing substance abuse among adolescents.

Methods: A pre-experimental approach was used among 30 plus one students, selected through purposive sampling. Data were collected using a validated structured questionnaire focusing on socio demographic details and knowledge questionnaire regarding substance abuse and its consequences **Result:** Out of 30 participants, 73.4% gained adequate knowledge on substance abuse and its consequences after the structured teaching program. The intervention was statistically effective ($t = 10.46$, $p < 0.05$). Additionally, type of family and relationship with the mother showed a positive association with post-test knowledge scores. Data were analyzed using descriptive and inferential statistics.

Conclusion: The study revealed that while most participants had adequate knowledge on substance abuse, structured teaching programs are essential to further enhance awareness and promote positive preventive practices.

Keywords: Substance abuse, knowledge, structured teaching program, effectiveness, higher secondary students.

INTRODUCTION

Adolescence is a critical developmental stage marked by major physical, emotional, and social changes that increase vulnerability to risky behaviors, including substance abuse.¹ Globally, a large share of youth experiment with alcohol, tobacco, and drugs, often influenced by peer pressure, family factors, community environment, and early exposure.² Studies show that substance use in adolescence is strongly linked to mental health issues, poor academic performance, risky behaviors, and long-term dependence.⁴⁻⁶ In India and worldwide, rising trends in adolescent drug use highlight the urgent need for prevention through education, supportive environments, and early intervention.^{2,5} Strengthening family relationships, improving awareness, and implementing school-based programs are essential strategies to protect adolescents and promote healthier futures.⁷⁻⁹

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of structured teaching program on knowledge regarding substance abuse and its consequences among higher secondary students in selected school.

OBJECTIVES

- To assess the level of knowledge regarding substance abuse and its consequences among higher secondary students.
- To evaluate the effectiveness of a structured teaching program on knowledge regarding substance abuse and its consequences among higher secondary students.
- To determine the association between post-test knowledge scores regarding substance abuse and its consequences and selected socio-demographic variables among higher secondary students.

OPERATIONAL DEFINITIONS

- **Knowledge:** Refers to the awareness and understanding of higher secondary students about the consequences of substance abuse, measured through a structured knowledge questionnaire, where higher scores indicate better knowledge.
- **Higher Secondary Students:** Students of 11th and 12th grade, typically aged 16–18 years, who are in the final stage of school education.
- **Effectiveness:** Indicates how well the structured teaching program improves students' knowledge, measured by the difference between pre-test and post-test scores using a paired t-test.
- **Substance Abuse:** The harmful use of alcohol, tobacco, or illicit drugs, including their causes and physical, psychological, and social consequences as taught in the program.
- **Structured Teaching Program:** A planned educational intervention using a PowerPoint and booklet, designed by experts to improve students' knowledge on substance abuse, delivered in a 30–40-minute interactive classroom session

HYPOTHESES

H₁: There is a significant difference in the knowledge scores regarding substance abuse and its consequences among higher secondary students before and after the structured teaching program.

H₂: There is a significant association between selected demographic variables (such as age, gender, parental education, or socio-economic status) and the post-test knowledge scores regarding substance abuse and its consequences among higher secondary students.

MATERIALS AND METHODS

Research Approach:

A Quantitative approach was used.

Research Design

A pre-experimental research design was used.

Research Variable

- Dependent variable: in the study is knowledge about substance abuse and its consequences
- Independent variable: is after effect of substance abuse.

- Demographic variables: in this study are sex , religion, monthly income of family, type of family, occupation of parents, residential area.

Setting of the Study

The present study was conducted at Lourdes Public School and Junior College, Kottayam.

Population and Sample

The study population comprised of Higher Secondary(plus one)students of Lourdes Public School and Junior College, Kottayam. A sample of 30 students selected using purposive sampling.

Criteria for Selection of Sample

Inclusion Criteria:

- Students who are willing to participate in this study.
- Both male and female students.

Exclusion Criteria:

- Students who are physically ill and absent during data collection period.
- Students who are not willing to participate in this study.

Description of the Tools

Tool 1: Structured Socio Demographic Questionnaire

It includes variables such as age, gender, family type, number of siblings, parental education, parental occupation, income, and relationships with parents and peers.

Tool 2: Structured Knowledge Questionnaire

A 30-item tool with one correct answer and three distractors per question. Each correct response scores one point, and incorrect responses score zero, with a total score of 30.

Score Key:

- Inadequate Knowledge: 0-10
- Moderately Adequate Knowledge:11-20
- Adequate Knowledge: 21-30

Data Collection

Data was gathered after getting formal permission from Principal Thiruhudaya College of Nursing and Principal of Lourdes Public School, Kottayam and informed consent from the participants.

Analysis

Data from 30 participants were organized, tabulated, and analyzed using descriptive and inferential statistics. Socio-demographic variables were analyzed using frequency and percentage distribution. The association between knowledge levels and selected demographic variables was assessed using the chi-square test. The effectiveness of the structured teaching program was evaluated using a paired t-test. Data were analyzed using Microsoft Excel.

Result**Section 1 : Socio demographic characteristics****Table 1 : Distribution of samples based on socio demographic variables****(n=30)**

Socio demographic variable	Frequency	Percentage
1.Age		
15-16 years	27	90%
17-18 years	3	10%
19-20 years	0	0%
2.Gender		
Male	13	43.3%
Female	17	56.6%
3.Education		
Plus one	30	100%
Plus two	0	0%
4.Type of family		
Nuclear family	20	66.6%
Joint family	9	30%
Single parent family	1	3.3%
5.Number of siblings		
One	16	53.3%
More than one	8	26.6%
Nil	6	20%
6.Relationship with father		
Good	19	63.3%
Fair	1	3.3%
Satisfactory	8	26.6%
Poor	2	6.6%
7.Relationship with mother		
Good	24	80%
Fair	0	0%
Satisfactory	6	20%
Poor	0	0%
8.Relationship with peer		
Good	18	60%
Fair	6	20%
Satisfactory	5	16.6%
Poor	1	3.3%

9.Educational status of father		
High school	4	13.3%
Pre degree	5	16.6%
Graduate	13	43.3%
Post graduate	8	26.6%
10.Educational status of mother		
High school	2	6.6%
Pre degree	8	26.6%
Graduate	12	14%
Post graduate	8	26.6%
11.Bad habits of parents		
Smoking	3	10%
Alcoholism	7	23.3%
Drug abuse	0	0%
No bad habits	20	66.6%
12.Occupation of parents		
Government	4	13.3%
Private	20	66.6%
Semi government	1	3.3%
Others	5	16.6%
13.Monthly Income		
Below 5000	0	0%
5000-10, 000	1	3.3%
10,000-15, 000	5	16.6%
Above 15,000	24	80%

Table 1 shows that among 30 students 90% of participants were aged 15–16 years, 1% were between 17–18 years, and none were between 19–20 years. Females made up 56.6% of the sample, while males accounted for 43.3%. All students were in Plus One. Regarding family type, 66.6% belonged to nuclear families, 30% to joint families, and 3.3% to single-parent families. In terms of siblings, 53.3% had one sibling, 26.6% had more than one, and 20% had none. For relationship with father, 63.3% reported a good relationship, 3.3% fair, 26.6% satisfactory, and 6.6% poor. Relationship with mother was good for 80% and satisfactory for 20%. Relationship with peers was good for 60%, fair for 20%, satisfactory for 16.6%, and poor for 3.3%. Regarding father's education, 43.3% were graduates, 26.6% postgraduates, 16.6% had pre-degree, and 13.3% had high school education. For mother's education, 26.6% were postgraduates, 26.6% had pre-degree, 14% were graduates, and 6.6% had high school education. Concerning parental habits, 66.6% had no habits, 23.3% had alcoholism, 10% smoked, and none used drugs. In terms of occupation, 66.6% of parents were private employees, 16.6% had other occupations, 13.3% were government employees, and 3.3% were semi-government employees. Monthly income was above 15,000 for 80% of families, between 10,000–50,000 for 16.6%, and between 5,000–10,000 for 3.3%.

Section 2: Effect of structured teaching program on knowledge regarding substance abuse and its consequences among higher secondary students.

Table 2: Frequency distribution and percentage of participants having knowledge regarding substance abuse and its consequences with respect to pre test knowledge scores

Knowledge score	Frequency	Percentage
Inadequate	0	0%
Moderately adequate	28	93.3%
Adequate	2	6.66%

The table 2 indicates that in pre test score 93.3% of sample shown moderately adequate knowledge regarding substance abuse and it's consequences and only 6.66% shown adequate knowledge.

Table 3 : Mean and standard deviation of pre test knowledge scores regarding substance abuse and it's consequences.(n=30)

Knowledge score range	Pre test score mean	Standard deviation
0-30	16.26	3.043

Table 3 shows that the mean pretest score of knowledge regarding substance abuse and it's consequences was 16.26 with standard deviation of 3.043.

Table 4 : Frequency distribution and percentage of participants having knowledge regarding substance abuse and it's consequences with respect to post test knowledge scores. (n=30)

Knowledge score	Frequency	Percentage
Moderately adequate	8	26.4%
Adequate	22	73.4%

Table 4 indicate that in post-test 73.4% of participants had adequate knowledge of 26.4 had moderately adequate knowledge regarding substance abuse and it's consequences.

Table 5 : Mean and standard deviation of post test knowledge regarding substance abuse and it's consequences

Knowledge score range	Post test score mean	Standard deviation
0-30	22.23	3.148

Table 5 depicts that the mean post test score of knowledge regarding substance abuse and it's consequences was 22.23 with standard deviation of 3.148.

Table 6 : Mean standard deviation and t value of pre test and post test knowledge scores regarding substance abuse and it's consequences.

Variable	Mean score	Mean difference	Standard deviation	df	t vale
Pre test knowledge score	16.26	5.966	3.043	29	10.46**
Post test knowledge score	22.23		3.148		

The above table 6 shows that the obtained 't' value is 10.46 is significant at 0.05 level. Therefore the result is statistically significant hence, the null hypothesis was rejected. It can be concluded that the alternative hypothesis is accepted indicating the mean post test knowledge score is greater than mean pre test knowledge score on knowledge regarding substance abuse and its consequence.

Section 3 : Association of post test knowledge scores regarding substance abuse and its consequences with selected socio demographic variables

Table 7 : Chi square value showing the association of post test knowledge regarding substance abuse and its consequences with selected socio demographic variable. (n=30)

Level of knowledge					
Variables	Inadequate	Moderately adequate	Adequate	df	X ²
	f	f	f		
Age					
15-16 years	0	7	1	1	2.133
17-18 years	0	2	1		
19-20 years	0	0	0		
Gender					
Male	0	4	9	1	0.0065
Female	0	5	12		
Other	0	0	0		
Relationship with mother					
Good	0	8	13	1	4.676
Fair	0	0	0		
Satisfactory	0	0	9		
Poor	0	0	0		
Type of family					
Nuclear family	0	4	18	2	7.622
Joint family	0	5	2		
Single parent family	0	0	1		

Significant at 0.05 level

From table 7 it was found that there is significant association between post test knowledge regarding substance abuse and its consequences with socio demographic variables like relationship with mother and type of family. The study revealed that there is no significant association between post test knowledge score regarding substance abuse and its consequences with other socio demographic variables like age and gender.

DISCUSSION

The present study assessed the effectiveness of a structured teaching program on substance abuse and its consequences among higher secondary students of Lourdes Public School, Kottayam. In the socio-demographic profile, 43.3% were males and 56.6% were females, and all participants belonged to the plus one class. These findings are comparable to a study conducted in Punjab (2016), where 58% of adolescents were male and 42% were female, and class 11 students showed better knowledge.⁷

In the present study, pre-test knowledge levels showed that 93.3% had moderately adequate knowledge, 6.6% had adequate knowledge, and none had inadequate knowledge. This aligns with a Karnataka study where 80% had inadequate knowledge, 20% had moderate knowledge, and none had adequate knowledge before the intervention.⁷

Post-test results of the present study revealed that 73.3% had adequate knowledge, 26.4% had moderately adequate knowledge, and none had inadequate knowledge. This is similar to findings from a Kashmir study (2023), where 89% had adequate knowledge, 11% had moderately adequate knowledge, and none showed inadequate knowledge after the intervention.⁸

The present study also showed a significant improvement between pre-test and post-test scores ($t=10.46$, $p<0.05$). This is supported by a study from Kishtwar (2025), which also reported a significant difference ($p<0.05$) in knowledge levels after a structured teaching program on substance abuse and its consequences.⁹

Nursing Implications

The findings of the study highlight the vital role of nurses in preventing substance abuse among adolescents. They show that nurses not only assess and identify risk factors but also provide accurate information through structured teaching programs to improve students' knowledge. Based on the results, nurses can conduct awareness sessions, promote open discussions, dispel myths, and integrate substance-abuse education into routine adolescent health care. Nurses can also empower students by teaching life skills such as decision-making and emotional regulation, and by training peer educators to sustain long-term impact. Overall, the study emphasizes that nurses act as educators, counsellors, and advocates who guide and support adolescents in making healthy choices.

Limitations of the Study

- The present study was limited to selected higher secondary students thus posing restrictions to generalization.
- The sample size was relatively small, which may limit the reliability of the statistical analysis.
- The effectiveness of structured teaching program was measured only through knowledge scores and not by assessing changes in attitude or behavior.

Recommendations

- The study can be replicated on a large sample to a large population, to generalize the findings.
- A comparative study can be carried out between rural and urban area's adolescents.
- A comparative study can be carried out between boys and girls.
- An experimental study could be replicated with a control group.
- A comparative study could be undertaken to evaluate different teaching strategies, self-instructional module, peer evaluation and education by students.

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